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## ORIGINAL DEPARTMENT.

### LECTURE.

#### TENOTOMY OF THE TENSOR-TYMPANI.

BY PROF. JOSEPH GRUBER, M. D.,

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(Delivered at the Meeting of the Society of Physicians in Vienna, Feb. 16th, 1872.)

(Translated from the "*Allgemeine Wiener medizinische Zeitung*," Nr. 3, Jahrgang, 1872.)

BY CHAS. S. TURNBULL, M. D.,  
Of Philadelphia,

Resident Assistant Surgeon to the New York Ophthalmic and Aural Institute.

The operation about which I am to speak, although new in practice is not so in theory. In the last decennium, Hyrtl called attention to the possibility of performing this operation upon the living, and, although himself not a practitioner, our great master has by his genius not only illuminated the anatomical field for practitioners, but has also prognosticated the probability of the existence in the structures of the organ of hearing of morbid changes, which at that time almost unknown to us, must to-day be recognized as a frequent occurrence; and in consequence of which secondary conditions arise, which, as my honored teacher perceived, may furnish the indication for the section of the tendon of the tensor-tympani muscle.

Very soon after commencing my aural practice, I appreciated the value of Hyrtl's theory, and have always, in my lectures, proclaimed for it a great future. I hesitated before making the operation upon the living, wishing to have previously settled

several preliminaries by exact investigations and clinical experience. It was necessary, at first, to make minute examinations in order to elucidate the action of the tensor tympani muscle. Clinical observation and experience teach us to recognize the objective phenomena by which we can determine with certainty the changes beyond the membrana tympani, against which we may undertake the tenotomy of the tensor-tympani with expectations of success; and finally a more extended experience will justify the opinion which I have for a number of years maintained, that operations upon the membrana tympani, almost proscribed at the time I commenced aural practice, could be made without any danger to life, and when properly performed, without any danger to the hearing.

According to these, my opinions, I declared myself, most emphatically, in favor of this operation, about the time of the appearance of the classical treatise of Helmholtz upon "The Mechanism of the Ossicles of the Ear,"\* in which treatise the view already proven by the experiments of Politzer and myself, although performed by each in a different manner, unquestionably demonstrated that in active contraction of the tensor-tympani muscle the malleus is not only drawn inward, but also with it the whole chain of ossicles, and consequently a stronger contraction of this muscle, or a change equal in effect to this contraction, will increase the intra-auricular pressure, and so cause the usual subjective symptoms.

In a more extensive treatise which I pub-

\*S. Pfüger's Arch. für die gesammte Physiologie des Menschen und der Thiere 1. Band, 1. Heft.

lished about the commencement of the year 1869, in the "*Wiener medicinische Wochenschrift*," concerning the developed theories already mentioned in the above work, I declared that the operation for tenotomy had already secured a position for itself in otological therapeutics.

About that time other preliminary questions which I had advanced, not only in this but in other works, and, as I shall have the honor to explain, later recognized symptoms upon the membrana tympani, led us with certainty to diagnosticate those conditions which must exist in the structure of the middle ear to indicate tenotomy.

About this same time was promulgated the news of this operation being performed for the first time upon the living.

Fr. E. Weber published a short article, in the "*Monatsschrift für Ohrenheilkunde*,"\* in which he stated he had performed this operation several times upon the living, and had used a peculiar instrument, which I shall later have the honor to show you.†

I will here most emphatically announce that the great merit of being the first to perform this operation upon the living subject belongs to Dr. Fredk. E. Weber; a distinction the more to be esteemed because in this operation ear patients, particularly, expect to derive more benefit and exact a more favorable prognosis in proportion to the amount of suffering, which enhanced responsibility might cause many to shrink from the performance of this operation.

Before I enlarge upon the description of the operation and its indications, I shall briefly recall the topographical relations of this muscle, at the same time adding some other interesting observations.

According to the latest investigations of L. Mayer‡ and Rebsamen,§ the latter of whom worked under the supervision of Prof. Wedl here in Vienna, the tensor tympani muscle arises from the cartilaginous portion of the Eustachian tube, but is connected with the tensor-veli palati muscle by a tendinous prolongation in such a way that the intimate connection between the two is completed, and L. Mayer even asserts that he considers the two muscles as a single digastric muscle.

\*Jahrg. II, Nr. 12, (1868.)

†Tenotomy of the Tensor Tympani, by Dr. F. E. Weber. Translated by Dr. L. Turnbull. *Medical and Surgical Reporter*, Philadelphia. Mar. 22, 1874.

‡Studien über die Anatomie des Canalis Eustachii. München, 1863.

§Monatsschrift für Ohrenheilkunde, 1863.

In its further course through the upper portion of the "canalis musculo-tubarius," as Langer aptly names the semi-canal of the tensor-tympani muscle, it is strengthened by fibres which arise from the septum canalis musculo-tubarii, and while its almost parallel fibres are attached along the canal by rather close connective tissue, it sends its tendon, as is well known, around the rostrum of the cochlea, in order to be inserted into the handle of the malleus. In this course, as is easily seen, it must cross the axis connecting the anterior and posterior walls of the tympanum.

As I first pointed out, the tendon is inserted not only at the inner margin, as was formerly generally considered, but also on the anterior surface of the handle of the malleus; here I call particular attention to this condition, because it will not only influence the movements of the malleus itself during contraction of the tensor-tympani muscle, but also because this manner of insertion of the tendon determines the choice of the point as well as the method of operation. When, corresponding to this manner of insertion, the tensor-tympani muscle contracts, the malleus is not only drawn inwards, but is also rotated on its longitudinal axis, a fact which, as will be seen hereafter, can be turned to pathological account.

I have already mentioned that through the works of Helmholtz, Politzer and my own, it has been proved that when the tensor-tympani muscle is immoderately contracted it will not only move the malleus, and with it the membrana tympani, but also if the contraction be excessive the whole chain of ossicles is drawn inwards, and, as a consequence, the plate of the stirrup is pressed deeper upon the oval window (fenestra ovalis).

Under normal conditions, and according to the anatomical construction of the labyrinth, and further through the presence of the stapedius muscle, which may, in a certain sense, be taken as the antagonist of the tensor-tympani, regulators are furnished to act against this sudden and increased intra-auricular pressure, and the disagreeable symptoms will not continue.

Moreover, under normal conditions, the contraction of the tensor-tympani muscle does not last long, but it soon relaxes; membrana tympani and ossicles returning to their

normal position, all abnormal sensations disappear.

In certain abnormal conditions of the hearing organs it is quite different, not only in certain primary affections of the muscular apparatus itself, and these are certainly very rare, but also in changes in the formation of the middle ear due to disease; and in this connection permit me to make some special observations.

I have already mentioned that the tensor-tympani muscle stands in close connection with the tensor-veli palati. It is well known how often this muscle suffers in the frequent diseases of the naso-pharyngeal structures. If we notice the soft palate and, usually hypertrophied, tonsils into which this muscle enters, we will see how the same is displaced and drawn out of its position, and it will be clear to us that this muscle in such cases is unable to properly perform its function, viz., the opening of the Eustachian tube, and this abnormality, sooner or later, will be sure to affect its companion muscle, the tensor-tympani, and so cause the spasmodic contraction of the latter, which will exert a further influence upon the labyrinth. What I have here said concerning the more conspicuous changes in one of the pharyngeal structures is also applicable to many others that are partly objective, and partly due to pure neuropathic conditions; hence it is obvious that such affections in the pharynx may exert an influence upon the tensor-tympani muscle, even to cause its permanent contraction.

This likewise holds true, but in a more marked degree, in diseases of the middle ear, and these observations have never, to my knowledge, been advanced before; the influence of diseases of the naso-pharyngeal structures upon the tensor-tympani muscle has not been taken into consideration, but its diseases have always been brought into close connection with those of the middle ear; these diseases often cause permanent alterations in the tensor-tympani, and often decide the question whether the indications exist for tenotomy.

In explanation I offer the following:—We know that when the membrana tympani and the ossicles are held in their normal position the ærostatic equilibrium between the external air and that within the tympanum is maintained. This equilibrium is maintained by a ventilating apparatus,

consisting of the Eustachian tube and its muscles, viz., the muscles of the soft palate, which are active in the different physiological functions, as swallowing, breathing, etc. It is well known that diseases of the naso-pharyngeal region, according to their form, not only obstruct this ventilation, but also may entirely suspend it, as ordinary catarrhal swelling of the mucous lining of the Eustachian tube prevents a renewal of the air in the tympanum and so closes it.

According to the still generally accepted theory of Toynbee, the air does not remain very long in the tympanum in such a case, but is very soon reabsorbed; in reference to which I have some serious reflections to offer in another place; the air then, being soon reabsorbed, as a consequence the membrana tympani, with the whole chain of ossicles, will be drawn inwards, by which means the intra-auricular pressure is again increased, causing all the disagreeable symptoms which usually accompany this anomaly, and which manifest themselves as deafness, tinnitus, vertigo, obliviousness, etc.

Taking for granted that the theory of the resorption of air cannot be longer maintained, the fact nevertheless remains the same, that by certain anatomical conditions the membrana tympani and the ossicles occupy the above mentioned pathological position, and the subjective symptoms of the disease remain as long as this abnormal condition lasts. As long as, by the use of proper means—for instance, the air-douche in such cases—the parts can be restored to their normal condition, the improvement may be momentary or lasting, but as soon as changes appear which are not remediable by this means, we are in the condition where hitherto we have been powerless against the disease. Now there are certain after conditions which resist even the most varied treatments, and affect each of the structures concerned, from the membrana tympani to the labyrinth and auditory nerves.

Poltzer was the first to demonstrate upon the cadaver one of the most important of these after conditions. On account of a long-continued sunken condition of the membrana tympani, the tensor-tympani muscle remains so long inactive that it gradually becomes shortened to its very tendon. This muscle is subjected to precisely the same changes as other muscles which are for some

time relaxed and inactive, for example, ankylosis in the joints.

If the tensor-tympani muscle remains relaxed for some time, and also becomes shortened—in which condition it may exercise its injurious influence upon the labyrinth—we have, up to the present time, scarcely any treatment resulting in lasting improvement. Here, then, is just where we find an indication for the tenotomy of the tensor-tympani, and there is no doubt that the opinion expressed some years ago by Hyrtl is correct, that there is the same indication for tenotomy in such cases as in club-foot.

I do not doubt that for tenotomy of the tensor-tympani muscle other indications will arise in the future. Mr. Weber has already recognized some, and I must at present leave it with him to secure their recognition. But there is, without dispute, a theoretical indication for tenotomy in cases where a persistent shortening of the muscle cannot be relieved in any easier way, and where the morbid symptoms make therapeutic interference desirable.

Where there is long-continued relaxation of the tendon in consequence of depression of the drum-head, shortening will arise as a further consequence; and so, too, a persistent spasmodic contraction of the tensor-tympani muscle, caused by irritations which have their primary origin in diseases of the pharyngeal structures, and which, as we have already seen, may easily extend to the tensor-tympani, and may develop a persistent shortening of the tendon as a consequence.

Now the question arises. Are there any positive symptoms by which we can with certainty diagnose, in the living, such a retraction of the tensor-tympani muscle? We must answer most decidedly in the affirmative.

I will not speak of the anamnesis, and of the subjective symptoms, which certainly deserve some consideration, but pass at once to those positive signs especially apparent in such cases. In consequence of the peculiar connection between the malleus and the membrana tympani, that is, the lower end of the malleus with the adjacent portion of the membrana, it is directed inwards, while at the upper end the short process pushes it outwards, and there originate two folds, the posterior of which is much more distinct, running backward, while the anterior fold

runs forward, and in the comparison of this bulging with the sunken condition of the membrane, we have an important indication, which I was the first to describe and employ in diagnosis.

When the membrana tympani is drawn forcibly inwards, the lower end of the malleus is drawn with it, while the upper end remains nearer its normal position, so causing the posterior fold of the membrana tympani to become more prominent, and we have at once an abnormal inward bulging of the membrana tympani. Of course, such a condition of the membrana tympani can be produced by causes other than a contraction of the tensor-tympani, but we possess very positive means of investigation for distinguishing other abnormalities which show the same pathognomonic appearances on the part of the membrana, and by exclusion we can make our diagnosis sure.

Since I have here considered the greater prominence of the folds of the membrane as a diagnostic symptom of the sunken condition, and as a phenomenon related to shortening of the tendon of the tensor-tympani, I might also describe many others which are all caused by shortening of the tendon.

We know how to recognize and appreciate them, and by a minute examination and some diagnostic acuteness, should seldom remain in doubt.

In this connection I might mention a few of the symptoms which are here of great diagnostic value, but which, as it seems to me, have not been sufficiently appreciated by my colleagues.

These appearances are as follows: The handle of the malleus appears broader, the membrana tympani is twisted (*terquirtsein*), the axis-band of the malleus becomes more conspicuous, and the membrana tympani returns more or less rapidly, by retraction, into its former abnormal position, after the application of the air-douche had caused it to bulge outward.

I shall explain these symptoms in a few words.

Concerning the widening of the handle of the malleus, I beg leave to recall what I have already mentioned in reference to the insertion of the tendon of the tensor-tympani muscle into the handle of the malleus. As the tendon is not only inserted into the inner edge of the malleus, but also into the anterior surface, then, as I have already



proved by experiment,\* a strong contraction of the tensor tympani not only draws the malleus inward, but rotates it upon its long axis, so that the posterior surface of the handle is turned more outward, whereby the whole handle, which formerly stood upward, presenting only its outer edge, must now appear broader.

This apparent widening of the handle of the malleus is a symptom which appears so frequently in diseases of the ear, that each of my colleagues, possessed even of a limited field of observation, must have noticed it, and I think, therefore, it needs only this brief mention to insure for it the deserved diagnostic value.

The twisting is that condition in which we find the membrana tympani when the apparent widening of the handle of the malleus (caused by retraction of the tensor-tympani muscle) becomes difficult, either on account of some abnormality, especially by irregular adhesions of the malleus itself, or on account of abnormality in the posterior segment of the membrana, or it becomes impossible on account of the restricted power of the tensor.

In such a case the membrana tympani becomes dragged out of position, so that it appears twisted (torquirt†).

In these cases the short process appears with its point directed forward; the anterior segment of the membrana tympani is generally deeper than the posterior, and we find by inspection of the anterior, that its different sections have different degrees of tension, whereby we frequently see a distinct line of demarkation between the antero-inferior and antero-superior quadrant, passing forward and downward. The posterior segment of the membrana tympani is, on account of the already mentioned anomalies, which generally appear simultaneously, almost always contracted, or apparently so; and if my colleagues will notice the short process also, they will be convinced that in just such cases changes can be perceived in the short process which can only be explained by supposing that between the upper end of the handle of the malleus and the extreme end of its cartilaginous formation a displacement has taken place.

\* See Gruber: Anatomisch-physiologische Studien über das Trommelfell und die Gehörknöchelchen, Wien 1867.

† I adopt this term because the displacement of the membrane appears to me somewhat similar to what, in surgical language, is called a slight torsion.

I here speak in reference to the prominence of the axis-band of the malleus, and must especially mention that this pair of ligaments\* can be recognized separately through the membrana tympani, even in the healthy organ; but I have only been able to see it in its entirety as very strong fibres when other symptoms pointed to high degrees of abnormal tension of the membrana, and especially when this anomaly of the tensor tympani gives rise to such morbid diseased conditions in the membrane.

As I said before, I could mention many objective symptoms in the membrana, all of which are visible by simple inspection of the membrana tympani. They are all sufficiently well known to practitioners, and I wanted only to point out those to which little or no diagnostic value has been attached.

I must not omit to mention that the impression we receive from the combination of the appearances of the membrana tympani before and after the application of the air-douche, impartially considered, strengthens the diagnosis, while at the same time this phenomenon conflicts with Toynbee's theory of the resorption of air. If in such abnormality of the muscle there are not any, or very slight adhesions, easily overcome by the air-douche, between the malleolar portion of the membrane and the promontory, then there will be found at first glance appearances of a sunken condition of the membrane, and the patient will also feel symptoms caused by the existing abnormality.

When we apply the air-douche forcibly and immediately afterwards inspect the membrane, of course supposing the Eustachian tube to be pervious, we find as a consequence increased internal pressure pushing the membrane outward.

This outward bulging is easily noticed, and the subjective symptoms will be improved, while its varying influence remains more or less permanent.

In cases of morbid spastic irritability of the muscle, its equilibrium is soon restored, and we see, as the improvement gradually decreases, that the membrane returns to its former abnormal, diseased position. Putting together the symptoms noticed before and after the application of the air-douche, we can easily make our diagnosis.

(To be continued)

\* The anterior ligament of the malleus runs from the spina-tympanica to the crista colli mallei, and the posterior ligament passes from the spina-tympanica post. to the same crista.

## COMMUNICATIONS.

## SANITARY STATISTICS OF ENGLAND.

BY T. D. CROTHERS, M. D.,  
Of Albany, N. Y.

The Registrar-General's annual summary of births, deaths, and the causes of death, for 1872, in London and other large cities of England, contains many suggestive facts, which are very interesting in view of the recent prominence of sanitary science.

The author discusses the social and economical advantages of large cities, as centres of civilization, showing that there are no evidences of deterioration in the inhabitants; but there is a limit to the growth of every city, similar to the growth of organic forms. This limit of extension depends more upon the species than space or time. Some of these limits may depend upon the supply of water, fuel, and food, or security from enemies, or the attractions or want of attractions for business, health, and pleasure. One prominent cause of the limitation of cities in Europe is their unhealthiness. For two centuries London was literally "a city of plagues," and truly called the "grave of the nation." There is a physical limit to the number of people who can live on a given space. But this varies in London, Edinburg, and on the Continent, where lofty houses, extending up many stories, increase the number of people to a dangerous degree. Happily this system has not prevailed to a great extent. The entire population in England is less than one person to an acre of ground. In twenty of the large towns of the kingdom the population was twenty-nine to the acre. In London it is forty-two per acre. This varies from seven to four hundred and twenty-nine in different districts. The limit of one hundred and fifty seems to have been seldom exceeded during the last ten years, in sections where the population has become denser. In nearly all the sections where the numbers were greater, they have diminished steadily. The well-established law, that the insalubrity of a place increases with the density of its population, and that fevers generated in crowded dwellings have a tendency to spread among the whole of the population, is true in London. The mortality in different districts varied from fifteen to twenty-nine in one thousand. The author points out the dangers

in the outlying districts of London, which are imperfectly supplied with water and proper sewers. Over a million of population are without the proper sewerage area, and from this source London has more cause for fear than from any other.

This is true of many American cities, and is the fertile source of many epidemics and fevers. The author also urges that the municipal rule should include all the suburbs, supplying them with water, sewers, and sanitary supervision, then the mortality would diminish to twenty or less in one thousand. The mortality in London averaged twenty-one during the year. The maxima of mortality was in the coldest and hottest weather—January and August. This law prevailed to a large extent in all the towns of the kingdom. Diarrhœa was the most fatal prevalent disease in London; whooping-cough, small-pox, measles, and fevers, were the next most prevalent and fatal diseases. The deaths from violence have increased largely during the year. This is probably due to the carelessness of street drivers, and reckless disregard of crowds. Deaths from burning have declined unusually. The American reader will be surprised to learn that a very small proportion of violent deaths are from "gun shots." In our larger cities this is the most prevalent cause of violent deaths. The tables of death from fever show that fever matter (Typh) has an independent life of its own, and undergoes periodical developments. A history of thirty years back indicates successive years when fevers have been extremely prevalent and fatal. In 1864 it was epidemic, but in 1872 it had fallen to a low ebb. Three kinds of fever are prevalent over England—typhus, typhoid, and relapsing fever. Typhus has declined rapidly since 1869; typhoid has also declined, only more slowly, and relapsing fever remains about as before. In public institutions one person in every six dies, and this is increasing. In the hospitals more are dying, and fewer in workhouses and prisons. This is significant, and is explained by a late American writer to arise from the imperfect ventilation and the poisonous surroundings of these old hospital buildings, many of them over half a century old. The same writer claims that no hospital building that has been occupied over ten years is a proper place for sick persons. The walls, notwithstanding all fumigation, will retain poisonous fever germs

and other dangerous animal matter. Mortality statistics of London, from 1840, indicate about twenty-four per cent. per one thousand. Divided up into five districts, in some an increase has been noticed, in others it has diminished. Altogether the mortality has decreased at the rate of from one to one and a half per thousand; considering the steady increase of the population, this is very gratifying. The author says, "disappointment may be felt that the mortality has not gone down to twenty per thousand permanently, but the reason is obvious, viz.: the water supply comes from the upper Thames, which drains a populous basin into which much impurity flows, and much of the sewerage is imperfect; these contribute to keep up the mortality. The low death-rate of last year is a favorable omen, yet the sanitary work of London is far from being complete. The mortality in the larger towns and cities of the kingdom is, in the aggregate, much higher. "In three cities where the population is very dense a high rate of mortality followed." "Density raises the mortality through the condensation of impurity; the quantity of air respired being equal in two populations, the quantity of impurity taken in bears a certain proportion to the strength of the noxious mixture. Density of population does not imply necessarily, but it does indicate density of zymotic impurity in most towns, and a resulting high rate of mortality." Increased precautions should follow in proportion to the density, to obviate its evils. The deaths for the year in these towns were over one thousand a week more than the healthy standard. Some of these towns show frightful mortality lists, and all are higher than that of London. One pleasing fact remains to be noted: nearly all the large capital cities of Europe, except in Russia, have a system of observations, recording deaths and fatal disease, by which we are able to make comparisons and trace causes, which the art and science of man may obviate. The great success which sanitary science has achieved in England gives promise of almost perfect immunity from such plagues as typhus, typhoid, diarrhoeal affections, diphtheria, etc. If an improved system of ventilation, sewerage, and good water diminishes the death-rate in Europe, and its old capital cities, what may we not expect from our young towns and cities, which are yet comparatively free from surface saturation with excreta of man and animals? This

subject has a personal interest to all our surroundings, and particularly as we may now remedy these defects in a comparatively easy manner, when in later years the obstacles would be serious and almost insurmountable.

## MEDICAL SOCIETIES.

### THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Continued from page 445.

#### UNIFORM SYSTEM OF REGISTRATION.

The Secretary read a paper by Dr. Charles P. Russell, of New York, on a uniform system of registration of diseases and the causes of death. The pith of the paper was the expediency of adopting Farr's classification of diseases, or of modifying it, and the best means of introducing the method adopted; necessity of uniformity of certificates of death, and of obtaining precise information as to the cause of every death, and the most useful methods of compiling statistics of ages, nationalities, etc., of decedents.

Dr. J. J. Woodward, of the United States Army, offered the following resolutions, which were adopted as the sense of the Association:—

*Resolved*, That in our opinion it is of the utmost importance that a common nomenclature and classification be adopted for the purposes of the registration of deaths and diseases, and especially by all English speaking people.

*Resolved*, That we regard the nomenclature and classification of diseases proposed by the College of Physicians of London, which has been extensively adopted in Great Britain and the United States, as more likely to be generally adopted for these purposes than any other system yet proposed, and that we hereby recommend its provisional adoption in the United States.

#### NECESSITY OF A NATIONAL SANITARY BUREAU.

Dr. C. C. Cox, of Washington, read a paper on this subject. He took strong ground for the establishment of a grand central Sanitary Bureau, because nothing was more certain than that sanitary measures, faithfully carried out, must result in improved health and prolonged life.

Dr. Toner offered the following, which was adopted:—

*Resolved*, That the American Public Health Association deems it opportune that an international medical congress be requested to assemble during the American Centennial of 1876, in Philadelphia, to consider and adopt a nomenclature and uniform classification of diseases in registration of deaths throughout the world.

Dr. Rauch offered the following, which was adopted:—

*Resolved*, That Boards of Health be re-

quested to make out their reports on vital statistics for the period beginning in January and ending in December, and not for any financial or municipal year.

Dr. Jarvis presented statistics of the lessening of births during periods of great calamities, and especially during the late war in the United States.

#### THE EPIZOOTIC.

The evening session was devoted to the recent horse disease. A paper was read by the Secretary, showing the course of the disease by maps, from its first appearance in Toronto to the present time, and colored drawings of post-mortem appearances.

#### SECOND DAY.—SANITARY ADMINISTRATION.

Dr. Elisha Harris' report "On Areas of Sanitary Administration and the Practical Application of General Laws and Local Ordinances Relating to the Public Health," was read by the President. It says that health laws are found by experience to be practically useful, acceptable, and well administered, in proportion as the inhabitants of communities are intelligently concerned about the causes for which laws and regulations have been called into existence. In the United States this truth is practically more important and has fewer exceptions than in most other countries. All sanitary regulations exercised by Government authorities in confronting the march of cholera proved unavailing except when communities applied them intelligently. The only real security against the march of disease lies in the intelligent support of the local and general health laws by the local and State authorities. This train of argument was continued in advocating Central Boards of Health, and concluded with recommending important suggestions for further action.

On motion of Dr. White, of New Orleans, *Resolved*, That the suggestions of the paper of Dr. Harris be referred to a committee to report drafts of a law for the organization of State Boards of Health, and also the draft of a general law to provide for the creation of local Boards of Health.

Dr. Woodward submitted a substitute for the above resolution, which was adopted, as follows:—

*Resolved*, That a committee consisting of Drs. Elisha Harris, Dorman B. Eaton, John Ordronaux and Stephen Smith be appointed to consider the best plan for the appointment and organization of National, State and local Boards of Health, and that the discussion of this report be made a special order of business at the next meeting of the Association.

#### THE GENERAL CAUSES OF DISEASE

Was the subject of a report by Dr. William Clendenin, of Cincinnati, and was one of the best papers presented, inasmuch as it treated of causes within the easy comprehension of all, and applicable to all communities. No mere abstract could do it justice,

while want of space only excludes it from our pages.

#### QUARANTINE.

The report on this subject by Dr. Henry Hartshorn, of Philadelphia, was presented, and read by the Secretary. It contained the following propositions, to which the Association was requested to assent:—

1. Personal quarantine is not, under any known circumstances, justifiable, either by the facts and principles of sanitary science, or by any proved or possible advantage. Sick persons, on a vessel arriving at quarantine, should be cared for in an appropriate hospital. Well persons, if the vessel be infected, should be required to leave it at once, and should, whatever the disease in the vessel, be allowed in all cases immediate liberty of departure.

2. The only legitimate purpose of quarantine is the inspection of vessels for the detection and removal of causes of disease which they may transport. Such removal requires a suspected vessel to be at once emptied of her cargo and passengers, so that processes of purification may be effectually applied.

3. Detention of vessels or cargoes at quarantine should last no longer than is necessary for thorough disinfection and purification, which, with improvements now available, need never be more than ten days, as a maximum, seldom more than five days.

4. Quarantine for the purposes of ship inspection and purification requires local establishments at a distance from every port, similar to those employed for rigidly restrictive quarantine, such as involves prolonged detention of vessels, cargoes, and persons, viz., a boarding station, anchorage, docks, wharves, warehouses, a hospital, a burying ground, and a house for the temporary accommodation of persons leaving an infected or suspected vessel. The last named of these may, of course, be smaller, upon the principle of personal liberty of departure, than the system of rigid and prolonged quarantine.

Another contribution on Quarantine was also presented, sent by Dr. Marsden, of Quebec. The paper is an expression of Dr. Marsden's plan of quarantining Asiatic cholera. It is the same plan as that proposed by Dr. Marsden at various medical and sanitary bodies for the last ten years, and its prominent features are too well known to need repetition.

The discussion of these reports being called for, Dr. Bell took decided grounds against Dr. Hartshorn's views, and defended quarantine as now practiced at New York, based upon accepted knowledge of zymotic diseases at the present time, and necessary for the protection of the public health. Drs. Rauch, Woodward, White, and others, took the same view.

Dr. Snow, of Rhode Island, favored Dr. Hartshorn's views. Dr. Hartshorn's paper, being only a partial report, was recommitted.



## SEWERAGE.

Dr. Rauch, of Illinois, demonstrated by statistics, illustrated by a map of Chicago, that the sanitary condition of that city is largely dependent on the efficiency of the sewerage. The speaker predicted the same relation between the sanitary condition and drainage in most other large cities. Most of the facts adduced are contained in a report of the Chicago Board of Health on sewerage.

Dr. Rauch's report being verbal and preliminary was recommitted.

## SMALL-POX IN NEW YORK.

Dr. E. H. Janes reported on the prevalence of, and the active measures taken by the Board of Health to estop, the small-pox. During the winter of 1871-2 there were more than 300,000 vaccinations and revaccinations by the Health Department alone, to say nothing of the number in private practice and at the dispensaries. "It requires no argument at this late day to prove the efficacy of vaccination in the prevention of small-pox, otherwise repeated instances could be given of the only person in a crowded tenement house who refused vaccination becoming the victim of the disease, while all of the others escaped."

## THIRD DAY.

Dr. Bell offered the following, which were adopted:—

*Resolved*, That all reports and papers presented to this Association thereby become the property of the same.

*Resolved*, That all reports and papers be referred to the Executive Committee, with power to publish so much thereof and in such form as, in the judgment of the said committee, will be most promotive of the objects of the Association, but the publication of a paper shall not be regarded as committing the Association to the opinions expressed by the author.

Dr. Toner moved that the proceedings of the Association be published in separate pamphlet form, under the title of "Proceedings of the American Public Health Association." Carried.

Dr. Toner also presented the following, which was adopted:—

WHEREAS, It is important that Boards of Health of cities should, at all times, have as definite information as to the number, condition, and distribution of their population as practicable; and, whereas, it has been practicable in other countries to collect such information, approximating correctness, through the aid of circulars properly prepared and distributed, which mode is attended with but little, if any, cost, and can be performed by the ordinary form of the various Boards of Health; therefore be it

*Resolved*, That local Boards of Health be recommended, whenever practicable, to take a census of their population annually, on the 1st of January, by the instantaneous mode; that is, through the aid of circulars with blank inquiries upon all points of special interest to vital statistics and sanitary conditions, these blanks to be previously distributed to each family and housekeeper within the city, to be filled up by them at a fixed hour on the same day, the same to be called for on the following day by officers of the Board of Health, or by the police of the city, or by any other method that may be desirable.

An invitation from the Hon. Mayor of Providence, R. I., having been received by telegraph, at the hands of Dr. Snow, that the next meeting of the Association be held in that city, the invitation was unanimously accepted, and the following resolution adopted:—

*Resolved*, That an adjourned annual meeting of this Association be held at Providence, R. I., to convene at 11 o'clock on the last Wednesday in September next.

## HOMES OF THE AMERICAN PEOPLE.

Prof. J. S. Newbury was then introduced by the President, and after some general remarks proceeded to address the Association on the Homes of the American People, commencing with the Atlantic slope, and going West to the Great Basin lying between the Sierras and the Rocky Mountains, thence to the Pacific slope.

The Association then adjourned as above.

## EDITORIAL DEPARTMENT.

## PERISCOPE.

## East Tennessee as a Health Resort.

We quote the following from the pen of Dr. F. K. BAILEY, of Knoxville, published in the *Tennessee Land Register*:—

A prominent feature of East Tennessee is its freedom from diseases which are so com-

mon in the Northwestern and Southwestern States. The Autumnal fevers, which have become an object of dread in so many parts of the Union, are seldom found here, and never, except upon some of the streams. In fact, the healthiest part of the year, in the hilly portions, is from July to February; whereas in many States that portion of the year is invariably the most sickly.

According to reports in the census of 1850 and 1860, it will be seen that our present average of mortality was lower than that of any other section east of the Rocky Mountains.

A second very important feature in this region is the mildness of the winters, and coolness of the summers. A casual observer of the map will naturally conclude that at a latitude of 36° the weather will be very hot in summer. But the latitude is compensated by the altitude. The higher we ascend from the level of the sea the cooler the climate in summer, so that upon the highest mountains lying along our eastern and western borders, there is no excess of heat in midsummer. Again, the southern latitude renders the winters mild, and hence we seldom see the mercury down to zero. Snow never falls more than a few inches in depth, and remains upon the ground but a short time.

We find here a mean of temperature through the year not elsewhere seen in the country, except on the Pacific coast. There are very many people through the whole North who are desirous of finding a locality free from the extremes of heat and cold, and at the same time healthy. Such may with truth be said of East Tennessee. We feel safe in saying that no region can be found at the same distance from the Atlantic coast which combines so many of the requisites to comfort during the whole year as this.

Although at midday the sun's rays fall much more vertically than at the North, still the nights are cooler than in Ohio or Illinois, while in New England the heat is oppressive during the whole night time; here one is seldom troubled with the heat after ten o'clock.

Persons predisposed to lung diseases, and who are annoyed every winter with a cough, in the colder States, will very soon appreciate the change on coming here. There is much of the consumption in our nation which results from the rigor of long and continuous cold winters. Exercise in the open air, which is so necessary to all, cannot be taken safely when the weather is extremely cold. Here, however, it is never so cold in the winter as to compel close confinement indoors.

The mountains on either side tend to break off the force of the high winds coming from the east or west. Hence, severe storms seldom reach us, and a tornado is almost unknown.

The atmosphere, also, is much less humid than in other parts of the country. The people complain little or none of oppression in breathing, even in the heat of midsummer. One can take a full inspiration at all times, day and night. There is less of languor and lassitude than is felt in the States lying along the Mississippi and its tributaries. There is a degree of light-heartedness and hilarity experienced among these hills scarcely known in a latitude so far south.

One very prominent and favorable result

of coming thither is experienced by persons afflicted with asthma and chronic bronchial affections. There are people scattered over East Tennessee, who came here suffering severely with asthma, who are either entirely cured or very materially relieved.

#### Treatment of Nervous Aphonia and Chronic Pharyngitis.

Dr. MANDL, in his "*Traité Pratique des Maladies du Larynx et du Pharynx*," quoted in the *Dublin Journal of Medical Science*, April, 1873, notes as an important clinical fact, that an essential nervous aphonia, viz., bilateral dynamic paralysis of the tensors of the vocal cords (crico-thyroides) may perhaps be in young girls the precursor of a tubercular inflammation which declares itself later. The return of the voice on the application of electricity is not an absolute security. It is in such cases especially that it is necessary to abstain, according to Trousseau, from the employment of ferruginous preparations, which determine a sanguineous plethora by no means devoid of serious inconveniences in individuals predisposed to hæmoptysis and to tubercularization.

For a long time Dr. Mandl also has prescribed the use of iron in chronic laryngitis and pharyngitis, as the plethora consecutive to its administration turns into a local hyperæmia; consequently, chronic phlegmasias are more often kept up by it than amended.

That particularly troublesome complaint known as granular (follicular) pharyngitis, or clergymen's sore-throat—generally chronic in its nature, and, though often temporarily relieved, apt to relapse—Dr. Mandl has succeeded in curing, by painting the granulations twice a day, with a solution composed of one part of metallic iodine and one of carbolic acid, dissolved, by means of iodide of potassium, in one hundred parts of glycerine. If irritation supervene, the application is less frequently applied or superseded for a time. The largest granulations are first scarified, and then touched with the glycerole, but in a more concentrated form, and in variable proportions, according to the degree of the affection. This local treatment alone is, he believes, sufficient to radically cure the disease independently of any supposed diathesis. Dr. Mandl may probably have been led to adopt this mode of treatment from Dr. Hastings, who recommended the application to the "mucous crypts which had previously resisted the remedial effects of nitrate of silver," of a "saturated solution of iodine in rectified spirit."

#### A Physical Sign of Intestinal Perforation.

We learn from the *London Medical Record* that Dr. SPIAGGIA, of Palermo, reports the case of a woman named Marie Assunta Milia, aged twenty-five, who died in the hospital after having suffered for some days with symptoms of peritonitis and intestinal perforation. At the necropsy, the intestines were found agglutinated by exudation of

not very firm consistence, and some pus lay between the convolutions. The mucous membrane of the duodenum was much congested; and in the small intestine, at considerable distances from each other, were three perforations, each about the eighth of an inch in diameter, with well-defined edges next the interior of the tube, and irregular on the serous surface. The small intestine was also much softened, especially in the neighborhood of the perforations; the mucous lining of the large intestine was much congested.

The point to which Dr. Spiaggia specially draws attention is the presence of a sound which was heard on auscultation a little more than an inch below the umbilicus. It was synchronous with inspiration and expiration, being more distinct with the former than with the latter. It resembled the respiratory sound as heard at the sides of the vertebral column in the upper dorsal region. After commenting on the mode of production of this sound, which he attributes to the passage of gas into and out of the peritoneal cavity through the perforations in the intestine, Dr. Spiaggia arrives at the following conclusions: 1. A murmur synchronous with the respiratory act, heard by auscultation over the abdominal wall, and resembling the respiratory sound in intensity and character, is a diagnostic sign of intestinal perforation. 2. The absence of this murmur is, however, no indication, when other symptoms of perforation are present, that this lesion has not taken place. The sound may be absent under various conditions, such as (a) Extreme smallness of the cavity into which the perforation leads, especially if it be seated deeply in the abdomen or removed from the ear of the observer by tumors lying anteriorly; (b) Closure of the perforation by a loop of intestine or by a peritoneal tumor; (c) Intestinal adhesions; (d) The filling up, by previously formed exudation, of the cavity into which the perforation leads.

## REVIEWS AND BOOK NOTICES.

### NOTES ON CURRENT MEDICAL LITERATURE.

—A small journal of about twelve pages in octavo has lately been started in Paris by M. Fano, a distinguished oculist and sub-professor of the Faculty of Medicine, the title of which is *Journal d'Ophtalmologie et de Chirurgie*. It is to appear in monthly numbers. M. Fano says in his programme, that his object in founding the journal was to popularize the science of ophthalmology; and he has added the word "chirurgie" to the title, as he considers that both the sciences are one, and ought not to be sepa-

rated, and that no man can be a good ophthalmologist without being a good surgeon.

—The Committee of the German Union in aid of the Sick and Wounded in War announces that Her Majesty the Empress of Germany, on the occasion of the International Exhibition in Vienna, has instituted two prizes, each of the value of 2000 thalers (about £300) for—1, the best Manual of Practical Military Surgery; 2, the best work on the Geneva Convention.

### BOOK NOTICES.

A Comprehensive Medical Dictionary, Containing the Pronunciation, Etymology, and Signification of the Terms made use of in Medicine and the kindred Sciences. With an appendix comprising a complete list of all the more important articles of the *Materia Medica*, arranged according to their medicinal properties; also an explanation of the Latin terms and phrases occurring in Anatomy, Pharmacy, etc., together with the necessary directions for writing Latin prescriptions, etc., etc. By J. Thomas, M. D., etc. Philadelphia: J. B. Lippincott & Co., 1873. 8vo, pp. 704. For sale by Porter & Coates.

For a complete, compendious, and very carefully edited epitome of medical lexicography, this book is without a superior. The editor is not merely a physician, but a gentleman of very extensive and thorough culture, and well known for his labors in kindred fields, being the author of the *Pronouncing Gazetteer of the World*, the *Biographical Dictionary*, and other similar works, published by J. B. Lippincott & Co.

As a rule, we are altogether of the opinion that the larger a dictionary is, the better. The student and the practitioner should always have at hand the most exhaustive and perfect work of the kind to be obtained, and turn its leaves with untiring assiduity. But there are many occasions, especially in student life, when a convenient octavo will be used, when a large and heavy volume cannot or will not be. For such purposes, Thomas' Dictionary is excellently adapted, and the pains-taking accuracy manifested in its preparation and correction render it a trustworthy guide, and worthy of the highest commendation.

## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, JUNE 14, 1873.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

## METHODS IN MEDICINE.

Although metaphysics is a word in bad odor just now among medical writers, the fact remains that until it is made a part of medical education medical progress will always be slow and often be false. For what is metaphysics? Its most eminent votaries, Descartes and Kant for example, define it to be the criticism of the methods of acquiring knowledge. It is *not*, as so many erroneously suppose, a means of investigation. Let us illustrate its relation to experimental research by an analogy.

The chemist in an analysis pursues a process designed to ascertain certain facts. He uses a series of reagents. The accuracy of his result depends on their purity. To ascertain this, he tests them repeatedly in various ways. His results obtained from various experiments he seeks to unite under some generalization, to deduce from them some abstract law, to carry forward in the laboratory of the mind the process which he has commenced in the realm of the senses. In this sphere his reagents are methods of reasoning, laws of logic, just as certain, if incorrect, to lead him astray, as his chemical tests, if impure, to yield unreliable results.

Here metaphysics comes in, and applies itself to a critical examination of the laws of reasoning he has observed.

The ignorance or the contempt which have led to a neglect of metaphysical study has been a fertile cause of the conflicting theories of physicians, the multiplicity of "schools," and the growth of prejudice and charlatanism. "Statistics" have boastfully been marshaled in frightful array to support this or that treatment or hypothesis; loud asseverations of the invincible force of "facts and figures" have been made; long columns of numerals have been supposed to present such a bristling *chevaux de frise* that no opponent could overcome them.

Yet how frail these arguments often are, and how few know the very difficult art of studying numerical averages correctly, we had to be shown most convincingly by a German professor, who riddled these card-houses by his clear logic. (See New Sydenham Society's Publications, Vol. I.)

Lately we have noticed two articles which grasped the subject also in the right spirit, though far from covering the field. One of these is Dr. DUNSTER'S essay on *The Logic of Medicine*, published last year; the other some articles on *The Geometrical Method in Medicine*, by Dr. JAMES ROSS, in the *Practitioner*. The former undertakes to show, and does so with force and ingenuity, the mistakes which have been made by many famous writers and teachers of physiology and medical science by a want of clear conception of what the laws of logic applied to such a science imperatively require. The points are well made and the illustrations apt.

Dr. Ross sketches the history of some of the chief theories of medicine, especially in modern times, and indicates in what manner the application of the geometrical method of reasoning, simple, certain, and beautiful as it is when confined to its legitimate fields, fails egregiously when applied to a mixed science like ours. This,



as he shows, was the cardinal error of Hoffman and of Hahnemann, men of brilliant and supple minds, but with a strong affection for the positive laws of demonstration which mathematical science adopts.

Every thinker should learn early to recognise *how* he should reason, and refrain from all generalizing, still more from all dogmatic assertion, until he is able to defend not merely the goal he claims to have reached, but the roads and paths by which he arrived there. Otherwise he is in the unfortunate position of a general who, in an enemy's country, is cut off from his base of operations; and both will pretty surely meet with defeat.

## NOTES AND COMMENTS.

### Manners in French Hospitals.

The criticisms of English surgeons on the careless and slovenly manners of the *internes* and surgeons of the French hospitals are unquestionably just. The following sketch by an English writer is, to our knowledge, not overdrawn:—

It is certainly rather a shock to our notions of decency and propriety to see the same finger which has recently been employed in passing a catheter or examining a rectum, after a hasty wipe on the apron, thrust into the mouth to examine some tumor of the tongue or jaws. This disregard of the feelings of the patient is carried to an extent which we should call extreme.

At the St. Louis Hospital, women with skin diseases, whether syphilitic or not, are placed on a stool in a strong light, and then before the whole class requested by the physician to take off every article of clothing. There they stand, perfectly naked, while the professor diagnoses their disease, and points out its peculiarities and proper mode of treatment to the assembled students. Such a disregard of the feelings even of prostitutes would not be sanctioned in this country. Indifference to the suffering of their patients is again seen in the fact that at many of the hospitals the surgeon is attended through the wards by an *infirmier*, in his shirt sleeves, carrying a brazier full of hot coals and the accompanying cauteries. These formidable instruments are not only displayed before the

eyes of the patients who are about to be operated on, but they have to submit to them without having their eyes bandaged and without chloroform being administered. The agonized look of one poor little boy, whose hand was about to be scored with the hot iron for caries of the carpal bones, recalled to me those lines from Shakspeare's *King John*—

"O, save me, Hubert, save me; my eyes are out  
Even with the fierce looks of these bloody men."

French patients, however, seem to bear pain more equably and unflinchingly than English, and to have a more implicit and unquestioning faith in their surgeons, and in the procedures they are adopting for their relief. Anæsthetics are certainly much less used than with us. I saw the actual cautery frequently applied, and also an amputation of the cervix uteri performed, without chloroform.

### The Limitation of Syphilis.

Not every physician, as we remarked a few weeks since, agrees as to the plan of limiting venereal diseases. Some advocate the certainly facile and comfortable plan of doing nothing at all; but the proposal of Dr. CHARLES R. DRYSDALE, of London, has an originality and boldness in it which merits comment. He says in a letter to the *Medical Press and Circular*:—

To attack syphilis at its root, we must study closely the cause of prostitution. The great cause of that pestiferous and frightful evil is, that the sex passion is so strong in men that it somehow or other always finds vent; and if pernicious *a priori* theories prevent marriage from being almost universal, it is, I fear, quite hopeless merely to declaim, as is so generally done by able friends of mine, against men for being so frequently unchaste. I have sometimes attempted to point out why marriages are so comparatively infrequent in our day. My theory is that marriage is often rendered unpopular because families are so large in this and many old countries, that men fear extreme poverty if they marry; and thus run to the hideous counterfeit of marriage, prostitution. If casuists should ever deign to be tolerant and rational (and they may become so even in our time, who knows?), and be forced to admit that the production or non-production of children among married persons is a fair question for discussion among the most refined and noblest-minded

men and women, I for one shall not despair of the possibility of getting rid of syphilis; because when families shall become small, I know that very few persons will remain in the most uncomfortable and unhealthy state of adult singleness.

#### Vaccination Law Suit.

The New York *Star* says: "The city is sued by William Henry Arnoux, in the interest of a father whose child was diseased by bad vaccine matter, inserted by a city physician. Damages for that sort of thing are not often sought by sensitive people, but when sought they should be obtained. It is difficult to conceive a grosser outrage than the syphilitic inoculation of a healthy child."

This is, in our opinion, an absurd remark for a journalist to make. It is altogether unlikely any syphilitic poison was conveyed by the virus; and if it were, of course it would be the last wish of a city or a city physician to do it.

#### Trichinae Exported from the United States.

Dr. G. W. FOCKE, according to the *Berliner Klinische Wochenschrift* of April 21st, reports that a series of cases of trichinosis following the use of pork imported from the United States, has been recently observed in Bremen. Twelve persons were infected by a gammon of bacon bought at an auction; the younger, from ten to twelve years old, were least affected, while the adults suffered more severely. In course of time, more cases of disease, traceable to the use of other hams, were observed; and, at the time when the report was made, the number of persons suffering from trichinosis exceeded twenty. Living trichinae were found in the specimens of meat examined. The process of smoking only kills the trichinae in the more superficial parts of the meat, leaving their capsules easily recognizable; while in the interior the meat is almost raw and the trichinae are intact.

#### Pronunciation in Paralysis.

In a recent clinic, Dr. HUGHLINGS JACKSON, of London, remarks that those who have not examined cases of paralysis of the face would perhaps believe that a patient could not pronounce the labials. But the fact is that, when only one side of the face is paralyzed, he can say *p*, *b*, *f*, and *v*, if not quite well, so well that there is not the

slightest difficulty in telling what he says. This is so for *p* and *b* when the lips on both sides are absolutely paralyzed. One of Dr. BUZZARD's patients had paralysis of the face on both sides. He had not a trace of power over his lips, and yet his *p* and *b* were well uttered, and his *pr* was strong. Dr. HUGHLINGS JACKSON was allowed to examine him on these points. Contrary to what seems likely at first glance, is the fact that paralysis of the palate causes defect of labials—for the reason that part of the blast which should separate the lips goes by the nose. Those who do not bear this in mind would easily believe that the lips are affected in such cases. For they would be sure to try the patient's power to whistle; and it so happens that a patient whose palate is paralyzed whistles badly, and for the same reason that his labials are imperfect; part of the blast goes by the nose. But if the patient's nose be closed (to, in some measure, remedy the defect in the action of the palate), the sounds come out more purely.

#### Advances in Pelvic Pathology.

The eminent Dr. E. J. Tilt, of London, sums up the main points of progress during the last quarter of a century in gynecology, in the following propositions:—

"1. That the recognized frequency of inflammatory lesions in the ovaries and in the tissues that surround them is of much greater practical importance than is generally admitted. 2. That of all inflammatory lesions of the ovary those involving destruction to the whole organ are very rare, while the most numerous and therefore the most important may be ascribed to a disease that may be called either chronic or sub-acute ovaritis. 3. That as a rule, pelvic diseases of women radiate from morbid ovulation. 4. That morbid ovulation is the most frequent cause of ovaritis. 5. That ovaritis frequently causes pelvic peritonitis. 6. That blood is frequently poured out from the ovary and the oviducts into the peritoneum. 7. That sub-acute ovaritis not unfrequently causes and prolongs metritis. 8. That ovaritis generally leads to considerable and varied disturbance of menstruation. 9. That some chronic ovarian tumors may be considered as aberrations from the normal structure of the Graafian cells.

Dr. Tilt particularly notices the vast importance of peritonitis as cause, sequel, or

factor of many pelvic diseases, and he thought we had still to find the origin of that acute peritonitis sometimes met with in connection with salpingitis and in absence of any disease of the ovaries. Adhesive bands, the result of pelvi-peritonitis, firmly binding down the womb to the rectum or elsewhere, were represented as frequent and irremediable unless they encountered the gradually increasing strain of a pregnant womb; and Dr. Tilt infers that these strong adhesive bands would render useless, if not dangerous, any long-continued attempt to restore the womb to its right position by intra-uterine pessaries.

#### The Odor of Orris Root.

This is supposed to depend on an essential oil. At a pharmaceutical meeting, in England, a British pharmacist, Mr. Umney, said that he had had considerable experience in regard to orris, and had no doubts in regard to the existence of an essential oil, representing the odor of the root. He had distilled many tons of the latter, and found the yield to be about one part from one thousand. The oil obtained resembled cocoa butter, and communicated an exceedingly powerful odor to alcohol. It was very expensive, more so, perhaps, than otto of rose. It was suggested by one of the members present that this oil might be the orris camphor described by Gmelin. Prof. Wayne thought the odorous principle depended more upon the soft resin than upon the oil, but this does not appear to have been the case with the oil described by Mr. Umney.

#### Why Insanity Increases.

Sir JAMES COXE, Commissioner of Lunacy for Scotland, in discussing this subject, strikes at the root of this and many another evil of our civilized life when he says in his last address:—

"Communities should be trained in a knowledge of the human organism, and of the laws which determine its welfare. Ignorance of such knowledge has an all-pervading influence. It affects the proceedings of the Legislature, of the clergy, and of teachers, and through their instrumentality the conduct and behavior of the whole community. In the first place the complex nature of the human mind is overlooked; education is too much restricted to the cultivation of the intellectual faculties, and even their training is, as a rule, only partial and imperfect. In the second place, moral training may be said to be almost entirely ne-

glected; and the same remark is applicable to physical training.

"The neglect of physical training is almost universal, and even where it is attempted, it is calculated to do, perhaps, more harm than good.

"My doctrine then is, gentlemen, that insanity, so far from being a disease of civilization, is a disease of ignorance, and that the only way in which its extension may be checked is by imparting to every man a knowledge of the structure of his own body, and of the relations in which he stands to the moral and physical world around him."

This is sound doctrine, and we commend it to the thoughtful consideration of that class of physicians who fancy any physiological instruction furnished the public is *margarita ante porcos*.

#### Therapeutic Uses of Conium.

At a late meeting of the Surgical Society of Ireland, Dr. H. Kennedy said that hemlock acted as a restorative, especially in chronic and debilitated cases. But, to insure its desirable effects, it must be administered in what Dr. John Harley had termed its "physiological dose." The preparation on which most reliance could be placed was the succus conii. The author gave an account of three cases in which he had lately used this drug with marked benefit; viz., a case of glandular enlargement in a girl, aged 5; in a case of bronchitis simulating phthisis in a lady aged 22; and in the case of a boy, aged 9, who presented symptoms of vesical calculus. The remedy was of great use in phthisis, asthma with chronic bronchitis, neuralgia, and cornea. Children bore hemlock and belladonna in proportionally larger doses than adults. The author generally gave hemlock alone, but occasionally he combined with it iron and bromide of potassium. Dr. Kennedy regarded the pharmacopœial doses of the preparations of hemlock as too small.

#### Death from Gonorrhœa.

A case of death from this cause has been recorded by Dr. Villeneuve, of Marseilles Hospital. The patient was attacked by intense gonorrhœa, chordee, and inflammation. Leeches were applied, and a slough formed, which, on separating, exposed the corpus cavernosum; rigors shortly set in and pain in the joints of the upper extremities. The patient got an abscess in the elbow, and finally died from bleeding at the eschar wound on the penis. The history of the

case indicated acute gonorrhœa with penile and prostatic phlebitis and pyæmia.

Having seen intense gonorrhœa ending in "penitis" or inflammation of the entire organ, followed by the death of a fine young man, the question suggests itself whether amputation is not necessary and justifiable where no pyæmic symptoms are decidedly evident.

#### Advantages of Wet-Nursing.

The average mortality of infants one year old throughout France is 18 per 1000. In the ten departments which chiefly receive *les petits Parisiens*, the infants whom fashion and morality in France consign to rural wet-nurses, the mortality is 51.68 per 100. In the department of la Creuse, where the people marry early and mothers nurse their own children, the mortality is 12 per cent.; in that department (spite much emigration) the births exceed the deaths; in all the others the deaths exceed the births; and a gradual depopulation is proceeding in France, which excites the liveliest apprehension of the government.

#### University of Michigan.

Dr. Eugene W. Hilgard is the new Professor of Geology, Zoölogy and Botany in the University of Michigan. He is a native of Germany, but was brought to this country in early youth, returning to Germany to complete his education, and graduating at Heidelberg as a Doctor of Philosophy. For eighteen years past he has been a professor in the State University of Mississippi, and he holds a high reputation among scientific men.

#### Hypodermic Treatment of Collapse.

Mr. PENFOLD relates a case of collapse, in the *Australian Medical Journal*, the result of severe purging. The patient was hardly able to articulate above a whisper; indeed, he was rapidly dying. Strong stimulants, mustard poultices, and the external application of heat, were tried without effect. "After waiting for an hour," Mr. Penfold says, "finding there was no improvement in his condition, and believing that in a few minutes he would be dead, and, in spite of his friends' remonstrances to 'let him die quiet,' I injected 20 minims of a mixture of the strongest solution of ammonia with three times its volume of water into the left radial vein and connective tissue (into the lat-

ter by accident from want of sufficient assistance). In a few moments I thought the pulse was a little improved, and repeated the injection. After a short interval the man opened his eyes and tried to push away the syringe inserted in the vein with his right hand, and said 'Dash it, leave off,' in a moaning sort of way. From that instant he began to recover, and was able to take a little beef tea and brandy in the afternoon."

#### Mammary Scirrhus.

At a meeting of the Clinical Society of London, Mr. KESTEVEN related a case of scirrhus of the breast, illustrative of the treatment expounded in a report by the surgical staff of the Middlesex Hospital in 1857, upon which plan of treatment he thought that further information was desirable. The case related was that of a lady, aged 65, from whom a large primary scirrhus of the breast was removed by the employment of the chloride of zinc and incisions. A large eschar was removed, and the surface had healed within two months. The disease had reappeared in the cicatrix two years and a half subsequently, and was treated upon the same plan as before, with the same recovery in the parts. The patient, moreover, had reached the age of seventy-three, having remained in good general health, and perfectly free from any return of the cancer.

#### Discriminative Benevolence.

It is pleasant to record acts of benevolence which show an appreciation of the wants of the sick and suffering. A citizen of Boston, whose name is not published, has recently given to the St. Luke's Home for Convalescents, which for three years past has been one of the most interesting and beneficent of the city's charities, a house and fourteen acres of land in Falmouth, Mass., near the coast, to be used as a summer resort for the poor patients who always fill its wards.

#### Baby Farmers Executed.

Two women were executed in Naples by the axe a few days ago. The deed was done by a masked executioner, who severed each head at a single blow. The crime of these women was "baby farming," and it was proved that they had starved and deliberately murdered by other methods a large number of infants entrusted to their care. The awful



mode of punishment was chosen as a mark of the abhorrence which their crimes had excited.

We have seen instances reported of baby farming in this country. Let sure, swift, and severe punishment be the penalty. This will put a stop to it. Physicians should be on the lookout for such dens and their keepers, and report them to the authorities.

## CORRESPONDENCE.

### Vaccination and Revaccination—Four Cases.

EDS. MED. AND SURG. REPORTER:—

Case 1. An infant, at two months. I vaccinated on the third day after it had been nursed in the arms and kissed by a man covered with the eruption of variola. The vaccine vesicle properly appeared and went through the regular changes without any signs of disturbance from the contagion to which it had been exposed.

2d, 3d and 4th cases were revaccinated at the same time (about twelve or sixteen years after the primary vaccination), after the same delay after exposure. On the seventh day after the operation I saw that the vaccine vesicle was well developed. On the eleventh day they each had a slight eruption of varioloid appearing on the face.

A fifth person in the same house, exposed similarly, had revaccination performed a year previous, and no eruption or fever appeared in this case.

Never having seen similar cases reported, I concluded I would send you these to put on the record.

Respectfully,  
S. W. MORRISON, M. D.

### Epidemic Cerebro-Spinal Meningitis.

EDS. MED. AND SURG. REPORTER:—

An epidemic of cerebro-spinal meningitis, or spotted fever, made its appearance in this section of country about the middle of February last, and continued to rage until about the 1st of April. It attacked mostly children, but some few cases of adults.

Twenty cases of this dreadful disease occurred in my practice; fifty per cent. of them died. The duration of the fatal cases varied from a few hours to eighty days; the majority died before the fifth day. In those proving fatal the attack was sudden, with early and persistent delirium, and convulsions, and coma, the latter continuing until death. In those cases proving fatal in a few hours no eruption was visible until after death, when the chest and all along the spine was covered with petechial spots of an echymoma character. In the other cases, after the second day, the eruption was visible.

Those cases that recovered I saw soon after the attack, before any grave symptoms made their appearance. Convalescence

was often tardy, strength being very slowly regained. In some partial paralysis existed for two or three weeks, when they finally recovered.

The treatment that seemed to be most beneficial in my hands was to place the patient in a hot bath for fifteen or twenty minutes, and repeat it as often as was indicated by the recurrence of muscular contractions. Ice to head, early vesication, with cerate of cantharides, of nucha and spine, or friction with

R. Alcohol,	Oss.
Oil turpentine,	
Aqua amm,	aa ʒij.
Tr. capsicum,	ʒij.
Gum camphor,	ʒj. M.

Applied sinapisms to extremities or woollen blankets wrung out of hot water and alcohol, and kept up the application until relief was obtained.

I would open the bowels with a brisk cathartic of calomel and comp. ext. of colocynth, or oleum ricini and turpentine; afterwards kept the bowels open by purgative enemata containing turpentine, etc.

I gave quinine sulph. in large doses, also bromide of potassium; sulph. morphia, or Dover powders, to allay vomiting, and relieve restlessness, insomnia and hyperæsthesia. In protracted cases gave iron and quinine, nutritious diet, etc. I think if the above treatment could be used early at the outset of the disease, the mortality would be much less than it has been heretofore.

D. J. CUMMINGS, M. D.

Houston, Indiana.

## NEWS AND MISCELLANY.

### A Veteran Physician.

We recently spoke of Dr. Theophilus Clark, of Tinmouth, Vermont. The *Rutland Herald*, of a recent date says:—

"Dr. Clark is one of the most remarkable men in this State. He is ninety-three years of age, with all his mental faculties in active operation, and is as ready to respond to a professional call, by day or night, as forty years ago, and still continues the practice of medicine in one of the roughest and most hilly sections of Western Vermont. His memory is as vigorous and retentive as ever, and current events are understood and remembered, as well as the incidents of his boyhood. It is refreshing to see this veteran harness his horse on a winter's night, and drive over the Tinmouth hills to perform a delicate surgical operation, without glasses, and with the steady nerve of a man in middle life. We called the attention of the Doctor to a statement in a California medical journal, that he was the oldest practicing physician in the world, and received the reply that it was a mistake, that Dr. Lord, of Hartford, was three years older, i. e., ninety-six; but says the old man, 'he is not in full practice, and thinks of retiring.' When it

was suggested that when he reached his hundredth birthday, his friends should come together and celebrate the event, he replied that he should rejoice to see his friends upon such an occasion, but that he could not say that he was desirous of living longer than till his Heavenly Father should call him home, and that, above all, he had no desire to outlive his usefulness."

#### Army Change.

Assistant Surgeon John A. Brewer has been ordered to duty in the Department of the East, and Assistant Surgeon Julius H. Patzki to duty in the Department of the Lakes.

#### American Medical Association.

During the absence of the Treasurer in Europe all remittances must be made to the Permanent Secretary,

WM. B. ATKINSON.

—It appears that the cholera reached Nashville about June 8th. A despatch from that city, of that date, says "the excitement about the presence of cholera here is increasing," and adds that "the deaths by cholera, which some pronounce sporadic and others Asiatic, have not any one day exceeded seven.

—The Surgeon General has issued a circular requiring monthly reports to be made of the temperature, rain fall, and movements of the atmosphere at all medical stations where there is a thermometer and a rain-gauge.

—Prof. Joseph Pancoast has resigned the chair of Anatomy in the Jefferson Medical College.

—Montreal is organizing a Flower Mission, to supply flowers to the sick in hospitals, jails and almshouses.

#### OBITUARY.

##### DEATH OF DR. LEOPOLD MEIGNEN.

This distinguished musician, well known in Philadelphia, died at his residence, in this city, on Wednesday, June 4th, after a protracted illness, aged eighty years. Dr. MEIGNEN was born in France in 1798, and when quite young joined the army of the Empire. His musical attainments soon advanced him to the position of band-master, and while occupying that office he was with Napoleon's army on the fatal expedition to Moscow, then being in the twenty-first year of his age. He was present at the battle of Waterloo, when he received a severe wound. After the fall of the First Empire, Dr. MEIGNEN came to this country, arriving in the year 1828, and settled in Philadelphia, and for a long period carried on business as a publisher of music, in partnership with Mr. A. Flot. During this time he wrote a number of musical instruction books and other works. About twenty years ago a grand mass, composed by Dr. MEIGNEN, was performed for the first time at St. Mary's Church, and

it now forms part of the library of St. Augustine's choir. He also wrote the words and music of an oratorio called "The Deluge," which was produced by the old Harmonia Society. He was also very successful as a teacher of music. During the active existence of the Harmonia Sacred Music Society, it gave the degree of Doctor of Music to two Philadelphia musicians, one being LEOPOLD MEIGNEN and the other the late W. H. W. Darley. Dr. MEIGNEN studied medicine and graduated at the Jefferson Medical College, and for some time was one of the practicing physicians at the Pennsylvania Hospital. Some years ago he had a stroke of paralysis, and this was followed by two other attacks, the last proving fatal. As a musician and a composer, as well as for his intelligence and genial nature, Dr. MEIGNEN was well known and highly respected and esteemed.

##### DEATH OF HENRY M. KLAPP.

HENRY M. KLAPP, M. D., died on Wednesday, in the fifty-fourth year of his age. Deceased was a son of the late Dr. Joseph Klapp, long a practicing physician of this city, whose office was on Second street, below Bainbridge. In his early manhood Dr. HENRY M. KLAPP had quite a literary reputation, both his poetical and prose compositions appearing in Philadelphia magazines and newspapers. He was a regular contributor to the "Dollar Newspaper," and one of his productions took the first prize offered by the publishers for the best story founded on the American Revolution. For many years Dr. KLAPP was resident physician and apothecary at the Philadelphia County Prison, which position he left to take that of resident physician at the Eastern Penitentiary. Failing health compelled him to relinquish that some time since.

#### MARRIAGES.

BLAINE-STOW.—In Cincinnati, May 27th, at the residence of Mrs. A. F. Stow, by the Rev. R. M. Brown, of Rouseville, Pa., J. E. Blaine, M. D., of Tionesta, Pa., and Miss Ella L. Stow, of Cincinnati.

HOLLYDAY-LANNAY.—In Cincinnati, May 28th, at Christ Church, by the Rev. Thos. S. Yocom, John G. Hollyday, M. D., of Baltimore, Md., and Virginia M., younger daughter of Louis F. Lannay, Esq.

WALLACE-LINN.—In this city, May 28th, by the Rev. H. Aug. Smith, Dr. W. H. Wallace and Anna M., daughter of John A. Linn, Esq., of West Philadelphia.

#### DEATHS.

BALDWIN.—In Montpelier, Vermont, May 18th, Dr. John Baldwin.

GRAHAM.—In this city, on the 3d inst., Dr. Archibald H. Graham, in the 81st year of his age.

HANLY.—After a lingering illness, June 1st, at her late residence, in this city, Mrs. Anna L. Hanly, wife of Dr. Wm. H. Hanly.

KLAPP.—In this city, June 4th, in the assurance of a blessed hereafter, Henry M. Klapp, M. D.

MCCURDY.—March 30th, at Reading, Pa., John K. McCurdy, M. D., in the 62d year of his age.

MOTT.—In New York, June 2d, Louisa D., widow of the late Dr. Valentine Mott, in the 77th year of her age.